

FCF Preliminary Design Review Agenda

February 12-16, 2001

Day 1 - Monday, February 12, 2001

FCF System Preliminary Design Review

Cleveland Airport Marriott Hotel - 4277 West 150th Street, Cleveland, Ohio

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
8:00 am	Welcome; Introductions	GRC/J. Salzman
8:15 am	GRC Microgravity Program Overview	GRC/S. Simons
8:45 am	FCF Project Overview	GRC/R. Zurawski
9:15 am	Requirements and Constraints	
	- System Requirements; Resource Constraints	GRC/D. Rohn
	- Fluids Science Envelope	GRC/M. Hill
	- Combustion Science Envelope	GRC/K. Weiland
10:00 am	MRDOC/FCF Prime Development Overview; Review Panel Charter	GRC/R. Corban
10:30 am	Break	
10:45 am	FCF System PDR	FDC/C. Pestak
	- FCF System Description; Interfaces	
	- FCF Flight Segment Design Features; Racks	
	- FCF Flight Segment Common Design Approach	
	- FCF Ground Units and Ground Segment Overview	
	- FCF Operations Overview	
	- Development Approach; Integrated System Testing	
	- System Analyses; Analysis Approach	
12:00 am	FCF Requirements and Verification	FDC/J. Wetherholt
	- FCF Design Requirements; Documentation	
	- Verification; Acceptance	
12:15 pm	Lunch Break	
1:15 pm	FCF Ground Segment Description	FDC/J. Knapp
	- Ground Segment Description; Facilities	
	- Flight Segment Support System	
	- Ground Units - EDU; GIU	
	- PTCU; Training	
	- Ground Support Equipment	
2:15 pm	FCF Initial Payloads	
	- Combustion Initial Payloads/MDCA	FDC/T. Johnson
	- Fluids Initial Payloads/LMM	FDC/E. Hovenac
	- Initial Payload Integration Overview	FDC/J. Knapp
3:15 pm	Break	
3:30 pm	FCF Operations; Logistics	FDC/J. Knapp
	- FCF Operations/Logistics Concept	
	- Reliability; Maintenance; Logistics; Sparing Plans	
	- Typical Fluids & Combustion Payload Operations	
	- Operational Resource Requirements	
	- Telescience Operations; TSC	
5:00 pm	FCF Steady State Payload Integration & Operations	FDC/M. Johanson
5:30 pm	Day 1 Summary/Panel Caucus; Adjourn	Panel/T. Labus
6:00 pm	Welcome Reception - Cleveland Airport Marriott Hotel	

FCF Preliminary Design Review Agenda

February 12-16, 2001

Day 2 - Tuesday, February 13, 2001

FCF Software; FCF Common Subsystems & System Summary; CIR Delta-PDR
 Cleveland Airport Marriott Hotel - 4277 West 150th Street, Cleveland, Ohio

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
8:00 am	Welcome; Announcements	
8:05 am	FCF Software Preliminary Design	FDC/S. Lux
	<ul style="list-style-type: none"> - Software Requirements & Design Drivers - FCF Software Development Approach; Tools - FCF Software Architecture; Processors; Firmware - Software CSCs - Software Management; Lifecycle Considerations - ISS, FCF, Payload Software Interfaces 	
10:00 am	Break	
10:15 am	FCF Common Subsystems Design & Government-Furnished Equipment	FDC/N. Bozzolo GRC/T. Rodgers
	<ul style="list-style-type: none"> - ISPR; ARIS; Structural Subsystems - Environmental Control Subsystems - Command & Data; EPCU 	
11:30 am	FCF System Summary	FDC/C. Pestak
	<ul style="list-style-type: none"> - Issues; Risks 	
12:00 noon	Lunch Break	
1:00 pm	FCF Combustion Integrated Rack Delta PDR	FDC/M. O'Toole
	<ul style="list-style-type: none"> - System Description; Design Drivers - CIR Hardware; Subsystems Overview - Summary of Changes Since CIR PDR 	
1:30 pm	CIR PI Interfaces	FDC/N. Bozzolo
2:00 pm	CIR Structural/Mechanical Subsystems	FDC/M. Robbie
2:30 pm	CIR Fluid; FOMA Subsystems	FDC/D. Catalano
3:00 pm	CIR Electrical; Power Subsystems	FDC/S. Lawyer
3:15 pm	CIR Command & Data Subsystems	FDC/M. Casciani
3:45 pm	Break	
4:00 pm	FCF-Provided Combustion Diagnostics	FDC/R. Helmick
4:45 pm	CIR Ground Systems; Integration; Ops; Utilization	FDC/J. Knapp
	<ul style="list-style-type: none"> - CIR-ISS Integration; Requirements Exception Status - CIR-MDCA Integration 	
5:00 pm	CIR System Topics	FDC/M. O'Toole
	<ul style="list-style-type: none"> - System Requirements Compliance; Verification - Resource Metrics: Mass, Power, Stowage - EM Development/ Test Plans - Risks; Issues 	
5:30 pm	Day 2 Summary; Panel Caucus	Panel/T. Labus
5:45 pm	Adjourn	

FCF Preliminary Design Review Agenda

February 12-16, 2001

Day 3 - Wednesday, February 14, 2001

FIR Preliminary Design Review

Cleveland Airport Marriott Hotel - 4277 West 150th Street, Cleveland, Ohio

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
8:00 am	Welcome; Announcements	
8:05 am	FCF Fluids Integrated Rack PDR	FDC/A. Peddie
	- System Description; Design Drivers	
	- FIR Hardware; Subsystems Overview	
8:45 am	FIR PI Interfaces	FDC/A. Peddie
9:15 am	FIR Structural/Mechanical Subsystems	FDC/A. Peddie
10:00 am	Break	
10:15 am	FIR Electrical; Power Subsystems	FDC/B. Gruber
10:45 am	FIR Command & Data Subsystems	FDC/B. Gruber
11:30 am	FIR Environmental Control Subsystems	FDC/A. Peddie
12:00 noon	Lunch Break	
1:00 pm	FCF-Provided Fluids Diagnostics	FDC/J. McDade
3:30 pm	Break	
3:45 pm	FIR Ground Systems; Integration; Ops; Utilization	FDC/J. Knapp
	- FIR-ISS Integration; Requirements Exception Status	
	- FIR-LMM Integration	
4:15 pm	FIR System Topics	FDC/A. Peddie
	- System Requirements Compliance; Verification	
	- Resource Metrics: Mass, Power, Stowage	
	- Engineering Model Development/Test Plans	
	- Risks; Issues	
4:45 pm	Day 3 Summary; Panel Caucus	Panel/T. Labus
5:00 pm	Adjourn*	
5:30 pm	Optional GRC/FCF Facility Tours	
	High Bay; PRCU – GRC Bldg 333	GRC/R. Corban
	Telescience Support Center – GRC Bldg 333	GRC/D. Malarik
	GRC Acoustics, EMI, Microgravity Emissions Test Labs	GRC/B. Cooper
	FOMA Lab – GRC Bldg 110	FDC/D. Catalano

FCF Preliminary Design Review Agenda

February 12-16, 2001

Day 4 - Thursday, February 15, 2001

SAR Conceptual Design Review; Fluids/Combustion Experiment Accommodation
Cleveland Airport Marriott Hotel - 4277 West 150th Street, Cleveland, Ohio

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
8:00 am	Welcome; Announcements	
8:05 am	SAR Conceptual Design	FDC/A. Peddie
	<ul style="list-style-type: none"> - SAR – FCF Role - System Description; Requirements - FCF/FIR/SAR Common Hardware 	
8:30 am	SAR Subsystems	FDC/A. Peddie
	<ul style="list-style-type: none"> - Structural/Mech. Subsystems - Electrical; Power Subsystems - Environmental Control Subsystems 	
9:00 am	FCF Command & Data Architecture	FDC/B. Gruber
9:30 am	SAR Ground Systems; Integration; Ops; Utilization	
	<ul style="list-style-type: none"> - SAR-ISS Integration; Reqmnts Exception Status 	FDC/J. Knapp
10:00 am	FCF/SAR System Topics	FDC/A. Peddie
	<ul style="list-style-type: none"> - System Reqmnts Compliance; Verification - Resource Metrics; Mass, Power, Stowage - Risks; Issues 	
10:15 pm	Break	
10:30 am	FCF Expt. Requirements Compliance Introduction	GRC/C. Pestak
10:45 am	Fluids Experiment Requirements Compliance	FDC/Pestak, McDade
	<ul style="list-style-type: none"> - Requirements Compliance Summary - Experiment layouts - FCF & Payload hardware & software interfaces - Resource, Performance and Operations Usage - Interface issues; Experiment Summary 	
12:00 noon	Lunch Break	
1:00 pm	Fluids Experiment Compliance (Continued)	FDC/Pestak, McDade
2:15 pm	Combustion Experiment Requirements Compliance	FDC/Bozzolo, Helmick
	<ul style="list-style-type: none"> - Requirements Compliance Summary - Experiment layouts - FCF & Payload hardware & software interfaces - Resource, Performance and Operations Usage - Interface issues; Experiment Summary 	
3:30 pm	Break	
3:45 pm	Combustion Experiment Compliance (Continued)	FDC/Bozzolo, Helmick
4:30 pm	Operations Summary for Fluids/Combustion Experiments Requirements Compliance	FDC/J. Knapp
4:45 pm	FCF Experiment Accommodations Summary	FDC/C. Pestak
5:00 pm	FCF PDR Summary; Issues; Risks	FDC/C. Pestak
5:15 pm	Day 4 Summary; Panel Caucus	Panel/T. Labus
5:30 pm	Adjourn	

FCF Preliminary Design Review Agenda

February 12-16, 2001

Day 5 - Friday, February 16, 2001

FCF PDR Executive Session

NASA Glenn Research Center – 21000 Brookpark Road, Cleveland, Ohio
Building 500, Room 3102

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
8:00 am	Welcome; Announcements	
8:05 am	Science Program Assessments of FCF	
	- SRED Level 1 Science Requirements Compliance	GRC/H. Ross
	- Fluids Science Assessment	GRC/M. Hill
	- Combustion Science Assessment	GRC/K. Weiland
9:00 am	FCF PDR Review Item Discrepancies	GRC/D. Rohn
	- FCF PDR RID Metrics	
	- FCF PDR Type 1, 2, 4 RID Descriptions	
10:00 am	Prior FCF Review RFA Dispositions	GRC/R. Corban
	- FCF Hardware Concept Review RFAs	
	- CIR Preliminary Design Review RFAs	
10:30 am	Break	
10:45 am	FCF Project Plan Review	GRC/R. Zurawski
	- Project Plan Overview; Implementation Plans	
	- Resource Requirements	
	- Project Schedules; Critical Paths	
	- Risks; Issues	
	- Go-Forward Plan for FCF ATP	
12:00 noon	Lunch Break	
1:00 pm	PDR Review Panel Caucus	
2:00 pm	Executive Session - Review Panel Feedback	Panel/T. Labus
3:00 pm	Adjourn	